

CLAIMS

1. A cutting insert normally clamped to a disk- or bar-shaped tool body (30, 36), in particular for milling crankshafts and having a front face (10, 22) along at least one edge of which, and preferably along opposite edges of which, there is a respective convex edge face (11) having an arcuate edge (12) extending over an angle between 90° and 180° and serving as cutting edge, characterized in that

either a straight cutting edge (14) generally perpendicular to the front face or at a maximum angle of 4° to a perpendicular to the front face or a concave edge (24) merges with the arcuate cutting edge(s) (12).

2. The cutting insert according to claim 1, characterized in that a mounting hole for receiving a mounting screw extends through the front face (10, 22) so that the cutting insert (31) can be mounted laterally on the tool support (30).

3. The cutting insert according to claim 1, characterized in that a mounting hole for receiving a mounting screw extends through a roof surface (35) so that the cutting insert (34) can be mounted via a mounting screw extending radially of the tool support (36).

4. The cutting insert according to one of claims 1 to 3, characterized in that the arcuate cutting edge (12) has an edge

bevel (17, 26) that extends at a bevel angle of 0° to 20°, preferably 10°, and/or that tapers at the front face to a width of 0 mm.

5. The cutting insert according to one of claims 1 to 4, characterized in that the radius of curvature of the arcuate cutting edge (12), is 1.0 mm to 2.5 mm, preferably 1.4 mm.

10. 6. The cutting insert according to one of claims 1 to 5, characterized in that the radius of curvature of the concave edge (24) is smaller than the radius of curvature of the arcuate cutting edge (12), preferably 0.3 mm to 1 mm, in particular 0.6 mm.

7. The cutting insert according to one of claims 1 to 6, characterized in that extending from the concave edge (24) there is a straight cutting edge (25) for machining cylindrical surfaces, in particular journals of crankshafts.

15. 8. The cutting insert according to one of claims 1 to 7, characterized in that flanks (18, 28) adjacent the arcuate cutting edge (12) and/or the straight cutting edge (25) are set at a positive cutting angle between 0° and 20°, preferably at a positive cutting angle of 10°.

20. 9. The cutting insert according to one of claims 7 or 8, characterized in that centrally extending perpendicular to the front face (22) there are planar side faces (23) that taper away

from the front face (22), preferably with flanks (29) extending away from these side faces acting as chip-conducting steps for chips produced by the straight cutting edge (25).

10. A milling tool with a plurality of laterally clamped cutting inserts (31; 32) according to one of claims 1 to 9, where a cutting insert (32) with an arcuate edge (12) and a straight adjacent edge (14) alternates with a cutting insert (31) with an arcuate edge (12) and a concave adjacent edge (24) and a further straight edge (25).